

AMENDMENTS TO THE CLAIMS

Please cancel Claim 6 and amend Claims 1 and 8 as follows.

LISTING OF CLAIMS

1. (currently amended) A controlled atmosphere furnace comprising
a conveyor device for continuously transporting articles to be brazed, each
of the articles being coated with a flux;
a preheating chamber for preheating the article and a brazing chamber for
brazing the article, and
an atmosphere shutter chamber disposed forward and rearward of the
brazing chamber for preventing atmospheric gas in the brazing chamber from flowing
out, one of the atmosphere shutter chambers being disposed between the preheating
chamber and the brazing chamber, wherein
the article conveyed through the preheating chamber is quickly preheated
by ~~[[the]]~~ a combustion gas, circulating in the preheating chamber in a closed-loop flow
path, close to a predetermined temperature and within a predetermined time; ~~[[and]]~~
a gas burner which creates the combustion gas and a circulation fan are
provided in the closed-loop flow path for the combustion gas;
the predetermined time is approximately five minutes in view of the
deterioration degree of flux in the combustor gas and the growth of oxide layer on the
article, and the predetermined temperature is approximately 450°C; and
the brazing chamber is filled with a non-oxygen atmosphere.
2. (cancelled)

3. (previously presented) A controlled atmosphere furnace as defined by claim 1, wherein the quick heating is carried out by controlling the gas burner and the circulation fan.

4. (original) A controlled atmosphere furnace as defined by claim 1, wherein a speed of the conveyor device is controlled so that the article passes through the preheating chamber within a predetermined time.

5. (original) A controlled atmosphere furnace as defined by claim 1, wherein the atmosphere shutter chamber has a plurality of metallic curtains.

6. (cancelled)

7. (original) A controlled atmosphere furnace as defined by claim 1, wherein a tip nozzle of a circulation duct defining the closed-loop flow path for circulating the combustion gas opens to a portion of the article required to be heated.

8. (currently amended) A method for heating a controlled atmosphere furnace used for preheating articles to be brazed, which are continuously supplied to the atmospheric furnace, prior to being brazed in a brazing chamber, wherein

the article is coated with a brazing flux and is quickly preheated to a predetermined temperature, with forcibly circulated combustion gas, within a

predetermined time determined in view of the deterioration degree of the brazing flux in the atmosphere combustion gas and the growth of an oxide layer on the article; and
the brazing chamber is filled with a non-oxygen atmosphere.

9. (original) A method for heating a controlled atmosphere furnace as defined by claim 8, wherein the predetermined time is approximately five minutes and the predetermined temperature is approximately 450°C.